1986
Financial
Ratio
Study

All Printers By
Geographic Area

Volume IV

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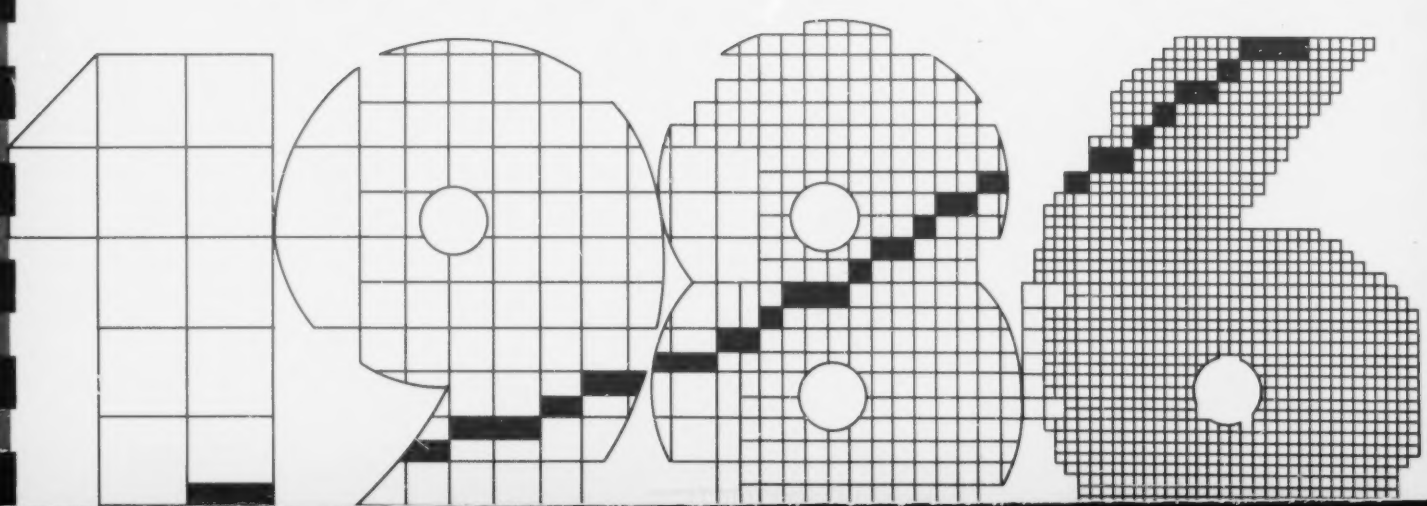

63RD annual ratio study compiled from the operating statements and balance sheets submitted by representative members of the printing industry, and computed by RGS Enterprises, Inc., 1 Carlisle Drive, Arnold, Maryland 21012.

1986 FINANCIAL RATIOS

ALL PRINTERS BY GEOGRAPHIC REGION

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PRINTING INDUSTRIES OF AMERICA, INC.

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H. R. MARGOLIS COMPANY

CERTIFIED PUBLIC ACCOUNTANTS

OFFICES
PHILADELPHIA
NEW YORK

Dear Member of the Graphic Arts Community:

H. R. Margolis Company is pleased to have once again participated with PIA and the graphic arts community in compiling these financial ratios. In all, 979 graphic arts firms of various types took part in the 1986 study. This particular volume is the result of financial information contributed by 867 printers across the United States and Canada.

To help readers compare their own financial statements to those of other firms, the data is presented here by geographic region - for example New England and Up-State New York, Metropolitan New York and New Jersey, etc. Readers can compare their firm's operations with other firms in the same geographic region in five areas: Operations based on Value Added and its Supporting Schedules, Operations based on Sales and its Supporting Schedules, Balance Sheet Ratios, Significant Facts, and Return on Investment.

The importance of sharing this type of information among members of the graphic arts community cannot be overemphasized. Such a comparative analysis enhances the health of both individual firms and the graphic arts industry as a whole. Consequently, we urge that all firms put these ratios to use in making effective and profitable financial decisions.

H. R. Margolis Company

H. R. MARGOLIS COMPANY

PRINTING INDUSTRIES OF AMERICA, INC.

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1986 is the 63rd year in which Printing Industries of America, Inc. has collected and published detailed financial ratio information for members of the graphic arts community. The data presented each year provide a detailed and comprehensive picture of the financial status of the major segments of the graphic arts industries in the U.S. and Canada. It allows individual firms to compare their annual performance with that of many other similar firms, including those which earn well above-average profits. Ratio results are published annually. They are summarized as follows:

- Management Guide to the PIA Ratios
- All Printers by Sales Volume
- All Printers by Product Specialty
- All Printers by Geographic Area
- Sheetfed Printers by Size and Geographic Area
- Web Offset Printers — Heatset
- Web Offset Printers — Non-Heatset
- Combination Offset — Sheetfed/Web
- Book Manufacturers' Ratios
- Large Printers' Ratios
- Typographers' Ratios
- Preparatory Specialists' Ratios
- Binders' Ratios
- Quick Printers

For a more complete composite picture of your company's performance relative to the industry as a whole, several books could be used in your analysis, such as one of the overview volumes, e.g., *All Printers by Sales Volume*, and one that addresses your particular business segment or production process, e.g., *Book Manufacturers or Web Offset — Heatset*, respectively. Alternatively, such analysis is facilitated by participating in the Ratio Study each year and ordering an individual company computer printout which compares a participant's ratios to those of companies which are similar in size and sales volume, produce the same products, and use the same manufacturing process.

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REGIONAL GEOGRAPHIC BREAKDOWN

New England and Upstate New York
Upstate New York, Connecticut, Rhode Island, Massachusetts, Vermont, New Hampshire, and Maine

Metropolitan New York and New Jersey

Eastern Pennsylvania, Maryland and the District of Columbia

Southeast Atlantic
Virginia, West Virginia, Eastern Tennesee, North Carolina, South Carolina, Georgia and Florida

East North Central
Ohio, Michigan and Western Pennslyvania

South Central
Southern Indiana, Kentucky, Missouri, Southern Illinois, Arkansas, Western Tennessee, Alabama, Mississippi and Louisiana

Chicago Area
Northern Illinois, Northern Indiana, and Eastern Michigan

West North Central
Iowa, Nebraska, North Dakota, South Dakota, Minnesota, Wisconsin

Plains and Mountain States
Texas, Oklahoma, New Mexico, Northern Arizona, Northwestern Nevada, Wyoming, Western Idaho, Montana, Kansas, Utah, and Colorado

Pacific Southwest
Southwestern Nevada, Southern Arizona, and Southern California

Pacific Northwest
Northern California, Northeastern Nevada, Oregon, Eastern Idaho, Washington, Alaska and Hawaii

Canada

VALUE ADDED DEFINED

Value added is a technical term for sales of a company's own manufacture. It is calculated as sales less material costs and outside services.

Sales		$100.00
Less: Materials		
Paper	$ 23.00	
Other chargeable materials	5.00	
Outside services	8.00	36.00
Value Added		$ 64.00

Material costs include paper and other chargeable materials such as ink, film, plates etc., but not general supplies or the repair and maintenance of equipment. Outside services are purchases of job-related services - composition, offset preparation, printing, bindery, etc.

Value added financial management is based on a fundamental principle of accounting: Profit is achieved from sales of a company's own manufacture. Time and time again, when printing companies show high sales but low profits, the root of the problem is in the failure to pay attention to the relationship between value added and profit performance.

VALUE ADDED AND PROFITS

Since value added is sales less material costs, it becomes a critical factor in paying your remaining expenses - expenses such as factory labor, other factory expenses, administrative expenses, selling expenses, and interest.

What is left is profit.

All sales do not contribute equally to fixed costs and profits. There are "good sales" and "better sales." Good sales are sales that require more than an average amount of materials and outside services. As a result, they have less value added with which to cover fixed costs and to produce a profit. They are called "good sales" simply because there are no "bad sales" in the printing industry.

Better sales require fewer materials and more inside sales - sales of your company's own manufacture. This type of sale generously covers overhead and pays more dollars into profits. Printing firms that follow value added financial management procedures do all work inside unless they cannot avoid sending it out.

A VALUE ADDED STATEMENT OF OPERATIONS

In keeping with the value added concept, operating statements are more meaningful when prepared on the basis of inside sales. In this type of statement presentation, management starts its financial analysis with value added instead of the sales column. This eliminates the distortion introduced by material costs. For example, in comparing percentages based on sales of a short-run, sheet-fed company and a web offset firm, we could be faced with a significant difference in ratios because of differences in material costs. Although it would appear that the web offset operation had a lower factory labor cost because a substantial amount of its sales were materials, this might, in fact, not be the case at all. Instead the factory labor cost could be more or less than its counterpart sheet-fed operation as it relates to the value added produced by this labor.

	COMPANY S SHEET-FED		COMPANY W WEB-FED	
		% OF SALES		% OF SALES
SALES	$1,000,000	100.00%	$1,000,000	100.00%
MATERIALS				
Paper	197,300	19.73	387,900	38.79
Other chargeable materials	42,800	4.28	35,000	3.50
Outside services	87,900	8.79	30,000	3.00
	328,000	32.80	452,900	45.29
		% OF VALUE ADDED		% OF VALUE ADDED
VALUE ADDED	672,000	100.00%	547,100	100.00%
FACTORY PAYROLL	241,800	35.98	177,500	32.44
FACTORY EXPENSES	121,800	18.13	101,300	18.52
	363,600	54.11	278,800	50.96
GROSS PROFIT	308,400	45.89	268,300	49.04
SELLING AND ADMINISTRATIVE EXPENSES	187,500	27.90	141,700	25.90
INCOME BEFORE INTEREST EXPENSE	120,900	17.99	126,600	23.14
Interest expense	18,300	2.72	7,900	1.44
OPERATING INCOME	102,600	15.27	118,700	21.70
Other income	10,200	1.52	16,200	2.96
INCOME BEFORE INCOME TAXES	$ 112,800	16.79%	$ 134,900	24.66%

The point is that every company's product mix is different, and by using statements of operations based on value added, this product mix difference is eliminated. Consequently, value added is a better statement with which to evaluate your operations.

ALL PRINTERS BY GEOGRAPHIC REGION

REPORT ON OPERATIONS - VALUE ADDED = 100%

	NEW ENGLAND AND UP-STATE NEW YORK	METROPOLITAN NEW YORK AND NEW JERSEY	EASTERN PENNA., MARYLAND AND D.C.
SALES OR VALUE OF PRODUCT PRODUCED	X	X	X
LESS: PAPER, OTHER CHARGEABLE MATERIALS AND OUTSIDE SERVICES	X	X	X
VALUE ADDED BY MANUFACTURE	100.00%	100.00%	100.00%
FACTORY PAYROLL	41.84	40.11	44.10
FACTORY EXPENSES	21.32	21.02	21.69
TOTAL FACTORY COST OF PRODUCT	63.16	61.13	65.79
GROSS PROFIT	36.84	38.87	34.21
ADMINISTRATIVE AND SELLING EXPENSES			
Administrative expenses	15.51	19.93	15.31
Selling expenses	13.35	13.23	12.29
TOTAL ADMINISTRATIVE AND SELLING EXPENSES	28.86	33.16	27.60
INCOME BEFORE INTEREST EXPENSE	7.98	5.71	6.61
Interest expense	3.09	2.89	3.31
OPERATING INCOME	4.89	2.82	3.30
Other income	0.45	0.21	0.59
INCOME BEFORE INCOME TAXES	5.34	3.03	3.89

SOUTHEAST ATLANTIC	EAST NORTH CENTRAL	SOUTH CENTRAL	CHICAGO AREA	WEST NORTH CENTRAL	PLAINS AND MOUNTAIN STATES	PACIFIC SOUTHWEST	PACIFIC NORTHWEST	CANADA
X	X	X	X	X	X	X	X	X
X	X	X	X	X	X	X	X	X
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
41.19	44.33	42.81	42.16	41.98	41.04	39.24	39.26	42.99
21.57	19.98	21.81	20.47	21.38	22.72	20.73	21.63	18.38
62.76	64.31	64.62	62.63	63.36	63.76	59.97	60.89	61.37
37.24	35.69	35.38	37.37	36.64	36.24	40.03	39.11	38.63
15.68	14.73	15.36	14.79	16.76	17.30	18.15	18.63	13.84
13.65	12.94	14.11	13.92	12.99	13.27	14.42	13.61	14.19
29.33	27.67	29.47	28.71	29.75	30.57	32.57	32.24	28.03
7.91	8.02	5.91	8.66	6.89	5.67	7.46	6.87	10.60
3.32	3.06	3.12	3.21	3.62	3.47	3.18	3.52	3.06
4.59	4.96	2.79	5.45	3.27	2.20	4.28	3.35	7.54
0.69	1.00	1.68	1.81	1.33	1.64	0.71	0.93	1.03
5.28	5.96	4.47	7.26	4.60	3.84	4.99	4.28	8.57

ALL PRINTERS BY GEOGRAPHIC REGION

SUPPORTING SCHEDULES - VALUE ADDED = 100%

	NEW ENGLAND AND UP-STATE NEW YORK	METROPOLITAN NEW YORK AND NEW JERSEY	EASTERN PENNA., MARYLAND AND D.C.
FACTORY PAYROLL			
Salaries - executive	3.05%	2.21%	3.14%
Direct wages	27.98	25.81	29.43
General factory salaries and wages	2.83	3.46	2.71
Packing, shipping and delivery wages	1.22	1.89	1.42
Payroll taxes	3.00	2.63	3.34
Employee benefits	3.76	4.11	4.06
TOTAL FACTORY PAYROLL	41.84	40.11	44.10
FACTORY EXPENSES			
Fixed Expenses			
Depreciation - real estate	0.49	0.28	0.49
Depreciation - other	5.78	5.59	5.42
Taxes - real estate	0.40	0.10	0.27
Taxes - other	0.25	0.11	0.22
Insurance	0.86	0.91	1.05
Building rent	2.23	2.63	2.19
Utilities - heat, light, etc.	2.13	2.51	2.14
Equipment rental	0.96	0.04	1.16
Total Fixed Expenses	13.10	12.17	12.94
Other Expenses			
Factory supplies and expense	3.14	3.21	3.62
Packing, shipping and delivery expense	1.81	2.74	1.59
Repairs and maintenance	2.11	1.89	2.41
Other factory expenses	1.16	1.01	1.13
Total Other Expenses	8.22	8.85	8.75
TOTAL FACTORY EXPENSES	21.32	21.02	21.69
ADMINISTRATIVE EXPENSES			
Salaries - executive	4.52	6.65	4.54
Salaries - office	4.27	5.06	3.60
Payroll taxes	0.66	0.70	0.63
Employee benefits	0.96	0.73	0.95
Bad debts	0.45	0.37	0.61
Office supplies and expenses	0.74	0.90	0.64
Professional fees	0.82	1.07	1.03
Taxes - business	0.06	0.08	0.19
Telephone	0.80	0.95	0.81
Other administrative expenses	2.23	3.42	2.31
TOTAL ADMINISTRATIVE EXPENSES	15.51	19.93	15.31
SELLING EXPENSES			
Salaries - executive	1.59	1.35	2.20
Salaries and commissions - salesmen	6.32	5.87	5.17
Salaries - sales office clerical	1.31	0.28	0.96
Payroll taxes	0.53	0.40	0.55
Employee benefits	0.66	0.48	0.48
Advertising	0.49	0.87	0.51
Travel and entertainment	1.49	1.77	1.19
Other selling expenses	0.96	2.21	1.23
TOTAL SELLING EXPENSES	13.35	13.23	12.29

SOUTHEAST ATLANTIC	EAST NORTH CENTRAL	SOUTH CENTRAL	CHICAGO AREA	WEST NORTH CENTRAL	PLAINS AND MOUNTAIN STATES	PACIFIC SOUTHWEST	PACIFIC NORTHWEST	CANADA
3.32%	3.22%	3.21%	2.64%	2.70%	3.31%	3.30%	2.42%	3.40%
28.43	28.14	28.51	27.51	28.87	28.37	26.80	26.85	30.15
2.72	4.03	2.61	2.97	2.45	2.48	2.01	2.47	3.76
1.45	0.93	1.59	1.61	1.10	1.58	1.33	0.95	1.33
2.69	3.45	3.02	3.23	3.18	2.86	2.66	3.30	1.08
2.58	4.56	3.87	4.20	3.68	2.44	3.14	3.27	3.27
41.19	44.33	42.81	42.16	41.98	41.04	39.24	39.26	42.99
0.48	0.60	0.56	0.47	0.73	0.42	0.30	0.39	0.41
6.47	5.55	5.64	5.20	5.42	6.53	5.08	5.87	4.76
0.40	0.30	0.28	0.51	0.42	0.31	0.23	0.26	0.47
0.33	0.63	0.55	0.14	0.17	0.53	0.50	0.53	0.15
0.90	0.63	0.88	0.80	0.87	0.99	1.10	0.88	0.40
2.09	1.67	1.83	1.97	2.05	2.30	3.37	4.13	2.00
1.95	2.12	2.09	2.36	2.05	2.19	1.65	1.39	1.37
0.74	0.81	1.05	0.54	1.07	1.68	1.32	1.37	0.48
13.36	12.31	12.88	11.99	12.78	14.95	13.55	14.82	10.04
3.45	3.17	3.13	3.17	3.18	2.78	2.54	2.70	2.67
1.33	1.12	1.84	2.09	2.54	1.61	1.35	1.22	2.07
2.36	1.87	2.25	2.20	2.02	2.30	2.20	1.93	2.55
1.07	1.51	1.71	1.02	0.86	1.08	1.09	0.96	1.05
8.21	7.67	8.93	8.48	8.60	7.77	7.18	6.81	8.34
21.57	19.98	21.81	20.47	21.38	22.72	20.73	21.63	18.38
4.39	4.15	4.69	4.16	5.52	5.53	5.09	5.54	3.61
4.04	3.63	3.59	3.63	3.76	4.62	4.64	4.35	3.61
0.56	0.62	0.58	0.52	0.65	0.88	0.70	0.82	0.17
0.66	1.01	1.00	0.91	1.02	0.68	1.12	0.99	0.47
0.69	0.58	0.61	0.72	0.81	1.00	1.06	0.86	0.92
0.83	0.65	0.68	0.70	0.88	0.74	0.88	0.84	0.85
0.85	0.84	1.15	0.92	0.79	0.74	0.91	0.93	0.90
0.20	0.41	0.27	0.29	0.10	0.23	0.10	0.69	0.31
0.84	0.64	0.71	0.63	0.68	0.68	0.94	0.92	0.78
2.62	2.20	2.08	2.31	2.55	2.20	2.71	2.69	2.22
15.68	14.73	15.36	14.79	16.76	17.30	18.15	18.63	13.84
1.99	2.23	1.89	2.40	1.96	1.89	2.14	2.39	1.87
6.65	5.81	6.71	6.20	6.00	6.64	6.20	6.24	7.01
1.14	1.16	1.15	1.10	1.06	1.08	1.12	0.99	1.19
0.64	0.60	0.60	0.53	0.53	0.54	0.55	0.64	0.21
0.51	0.67	0.71	0.67	0.55	0.40	0.58	0.73	0.50
0.59	0.48	0.74	0.63	0.68	0.74	0.98	0.81	0.81
1.09	1.22	1.47	1.22	1.30	1.02	1.32	1.19	1.43
1.04	0.77	0.84	1.17	0.91	0.96	1.53	0.62	1.17
13.65	12.94	14.11	13.92	12.99	13.27	14.42	13.61	14.19

ALL PRINTERS BY GEOGRAPHIC REGION

REPORT ON OPERATIONS - SALES = 100%

	NEW ENGLAND AND UP-STATE NEW YORK	METROPOLITAN NEW YORK AND NEW JERSEY	EASTERN PENNA., MARYLAND AND D.C.
SALES OR VALUE OF PRODUCT PRODUCED	100.00%	100.00%	100.00%
FACTORY COST OF PRODUCT			
MATERIALS			
Paper	23.53	18.75	22.37
Other chargeable materials	5.33	6.35	5.53
Outside services	7.82	12.70	9.18
TOTAL MATERIALS	36.68	37.80	37.08
FACTORY PAYROLL	26.46	25.38	27.69
FACTORY EXPENSES	13.38	13.16	13.38
TOTAL FACTORY COST OF PRODUCT	76.52	76.34	78.15
GROSS PROFIT	23.48	23.66	21.85
ADMINISTRATIVE AND SELLING EXPENSES			
Administrative expenses	9.89	12.35	9.61
Selling expenses	8.56	7.63	7.66
TOTAL ADMINISTRATIVE AND SELLING EXPENSES	18.45	19.98	17.27
INCOME BEFORE INTEREST EXPENSE	5.03	3.68	4.58
Interest expense	1.96	1.71	2.05
OPERATING INCOME	3.07	1.97	2.53
Other income	0.30	0.04	0.30
INCOME BEFORE INCOME TAXES	3.37	2.01	2.83

SUPPORTING SCHEDULES - SALES = 100%

OTHER CHARGEABLE MATERIALS			
Ink	1.65%	1.47%	1.32%
Film	0.97	0.94	0.95
Plates	1.15	2.23	1.48
Other chargeable materials	1.56	1.71	1.78
TOTAL OTHER CHARGEABLE MATERIALS	5.33	6.35	5.53
OUTSIDE SERVICES			
Composition	0.51	0.77	0.91
Offset preparation	1.26	0.98	0.88
Printing	1.50	2.05	1.72
Binding	2.82	4.87	2.91
Other outside services	1.73	4.03	2.76
TOTAL OUTSIDE SERVICES	7.82	12.70	9.18

SOUTHEAST ATLANTIC	EAST NORTH CENTRAL	SOUTH CENTRAL	CHICAGO AREA	WEST NORTH CENTRAL	PLAINS AND MOUNTAIN STATES	PACIFIC SOUTHWEST	PACIFIC NORTHWEST	CANADA
100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%	100.00%
24.45	24.42	24.52	23.66	27.32	23.06	21.96	20.82	25.58
5.14	5.64	5.76	5.80	5.31	4.79	4.48	4.98	5.61
7.58	6.81	8.78	8.67	6.81	9.21	9.74	9.63	8.54
37.17	36.87	39.06	38.13	39.44	37.06	36.18	35.43	39.73
25.84	27.91	26.14	26.19	25.27	25.81	24.83	25.50	25.90
13.51	12.58	13.19	12.63	12.75	14.31	13.10	13.97	10.95
76.52	77.36	78.39	76.95	77.46	77.18	74.11	74.90	76.58
23.48	22.64	21.61	23.05	22.54	22.82	25.89	25.10	23.42
9.86	9.35	9.42	9.26	10.29	11.10	11.76	12.01	8.47
8.49	8.18	8.61	8.63	8.12	8.25	9.17	8.66	8.64
18.35	17.53	18.03	17.89	18.41	19.35	20.93	20.67	17.11
5.13	5.11	3.58	5.16	4.13	3.47	4.96	4.43	6.31
2.07	1.87	1.87	2.05	2.14	2.11	2.00	2.23	1.80
3.06	3.24	1.71	3.11	1.99	1.36	2.96	2.20	4.51
0.45	0.61	0.95	1.02	0.75	1.09	0.41	0.52	0.59
3.51	3.85	2.66	4.13	2.74	2.45	3.37	2.72	5.10

1.22%	1.60%	1.77%	2.04%	2.12%	1.59%	1.51%	1.23%	1.61%
1.30	1.02	1.08	1.38	0.94	0.97	1.10	1.26	1.29
1.06	1.32	1.24	1.07	1.15	1.30	0.91	1.23	1.03
1.56	1.70	1.67	1.31	1.10	0.93	0.96	1.26	1.68
5.14	5.64	5.76	5.80	5.31	4.79	4.48	4.98	5.61
1.02	0.71	0.62	0.57	0.49	0.92	0.87	0.91	1.09
1.31	1.51	2.11	1.44	1.27	1.26	1.49	0.87	1.76
2.33	0.99	1.72	2.42	1.69	3.02	2.70	2.55	2.02
1.12	2.28	2.42	2.03	1.26	2.39	2.98	3.28	1.83
1.80	1.32	1.91	2.21	2.10	1.62	1.70	2.02	1.84
7.58	6.81	8.78	8.67	6.81	9.21	9.74	9.63	8.54

ALL PRINTERS BY GEOGRAPHIC REGION

SUPPORTING SCHEDULES - SALES = 100%

	NEW ENGLAND AND UP-STATE NEW YORK	METROPOLITAN NEW YORK AND NEW JERSEY	EASTERN PENNA., MARYLAND AND D.C.
FACTORY PAYROLL			
Salaries - executive	1.95%	1.44%	1.95%
Direct wages	17.78	16.31	18.55
General factory salaries and wages	1.73	2.06	1.70
Packing, shipping and delivery wages	0.74	1.26	0.87
Payroll taxes	1.89	1.66	2.09
Employee benefits	2.37	2.65	2.53
TOTAL FACTORY PAYROLL	26.46	25.38	27.69
FACTORY EXPENSES			
Fixed Expenses			
Depreciation - real estate	0.30	0.18	0.30
Depreciation - other	3.66	3.51	3.37
Taxes - real estate	0.25	0.06	0.16
Taxes - other	0.16	0.07	0.14
Insurance	0.55	0.56	0.64
Building rent	1.41	1.70	1.38
Utilities - heat, light, etc.	1.34	1.55	1.30
Equipment rental	0.57	0.03	0.67
Total Fixed Expenses	8.24	7.66	7.96
Other Expenses			
Factory supplies and expense	2.00	1.98	2.23
Packing, shipping and delivery expense	1.11	1.77	1.01
Repairs and maintenance	1.33	1.14	1.49
Other factory expenses	0.70	0.61	0.69
Total Other Expenses	5.14	5.50	5.42
TOTAL FACTORY EXPENSES	13.38	13.16	13.38
ADMINISTRATIVE EXPENSES			
Salaries - executive	2.88	4.37	2.82
Salaries - office	2.74	3.03	2.27
Payroll taxes	0.42	0.43	0.39
Employee benefits	0.62	0.46	0.60
Bad debts	0.26	0.20	0.37
Office supplies and expenses	0.47	0.51	0.41
Professional fees	0.52	0.65	0.65
Taxes - business	0.04	0.05	0.12
Telephone	0.51	0.55	0.51
Other administrative expenses	1.43	2.10	1.47
TOTAL ADMINISTRATIVE EXPENSES	9.89	12.35	9.61
SELLING EXPENSES			
Salaries - executive	1.02	0.80	1.31
Salaries and commissions - salesmen	4.08	3.43	3.26
Salaries - sales office clerical	0.84	0.17	0.62
Payroll taxes	0.34	0.23	0.34
Employee benefits	0.42	0.28	0.30
Advertising	0.32	0.48	0.34
Travel and entertainment	0.94	0.97	0.74
Other selling expenses	0.60	1.27	0.75
TOTAL SELLING EXPENSES	8.56	7.63	7.66

SOUTHEAST ATLANTIC	EAST NORTH CENTRAL	SOUTH CENTRAL	CHICAGO AREA	WEST NORTH CENTRAL	PLAINS AND MOUNTAIN STATES	PACIFIC SOUTHWEST	PACIFIC NORTHWEST	CANADA
2.10%	2.04%	1.95%	1.67%	1.64%	2.12%	2.07%	1.57%	2.01%
17.87	17.73	17.43	17.13	17.48	17.86	17.05	17.43	18.32
1.70	2.53	1.60	1.80	1.39	1.54	1.23	1.63	2.19
0.89	0.57	0.96	0.99	0.67	0.96	0.84	0.62	0.79
1.69	2.17	1.85	2.02	1.92	1.80	1.69	2.15	0.65
1.59	2.87	2.35	2.58	2.17	1.53	1.95	2.10	1.94
25.84	27.91	26.14	26.19	25.27	25.81	24.83	25.50	25.90
0.29	0.38	0.34	0.30	0.45	0.26	0.20	0.24	0.23
4.06	3.44	3.41	3.19	3.23	4.08	3.24	3.78	2.81
0.26	0.19	0.17	0.30	0.24	0.20	0.15	0.17	0.28
0.20	0.41	0.33	0.09	0.10	0.33	0.31	0.33	0.09
0.57	0.40	0.54	0.51	0.53	0.63	0.72	0.56	0.25
1.32	1.10	1.12	1.24	1.31	1.46	2.11	2.72	1.24
1.22	1.33	1.26	1.44	1.20	1.39	1.03	0.89	0.80
0.48	0.49	0.66	0.35	0.66	1.07	0.81	0.92	0.31
8.40	7.74	7.83	7.42	7.72	9.42	8.57	9.61	6.01
2.18	2.01	1.89	1.95	1.85	1.76	1.61	1.70	1.58
0.81	0.71	1.09	1.27	1.46	0.99	0.84	0.80	1.24
1.46	1.16	1.36	1.35	1.19	1.44	1.40	1.25	1.51
0.66	0.96	1.02	0.64	0.53	0.70	0.68	0.61	0.61
5.11	4.84	5.36	5.21	5.03	4.89	4.53	4.36	4.94
13.51	12.58	13.19	12.63	12.75	14.31	13.10	13.97	10.95
2.79	2.66	2.89	2.65	3.37	3.60	3.35	3.57	2.21
2.55	2.32	2.20	2.28	2.33	2.97	3.01	2.81	2.25
0.35	0.40	0.35	0.33	0.40	0.57	0.46	0.53	0.10
0.42	0.63	0.62	0.56	0.63	0.43	0.73	0.63	0.28
0.43	0.36	0.38	0.44	0.47	0.62	0.67	0.57	0.55
0.52	0.41	0.42	0.45	0.54	0.47	0.55	0.54	0.53
0.53	0.53	0.70	0.56	0.47	0.47	0.59	0.60	0.55
0.13	0.25	0.17	0.18	0.07	0.15	0.07	0.45	0.19
0.53	0.40	0.43	0.40	0.42	0.44	0.60	0.58	0.47
1.61	1.39	1.26	1.41	1.59	1.38	1.73	1.73	1.34
9.86	9.35	9.42	9.26	10.29	11.10	11.76	12.01	8.47
1.26	1.43	1.14	1.49	1.26	1.19	1.36	1.53	1.12
4.12	3.64	4.11	3.76	3.72	4.06	3.90	3.94	4.29
0.71	0.73	0.70	0.70	0.65	0.69	0.74	0.63	0.71
0.40	0.38	0.36	0.33	0.33	0.34	0.35	0.41	0.13
0.32	0.43	0.43	0.43	0.34	0.25	0.37	0.47	0.30
0.36	0.31	0.47	0.41	0.43	0.48	0.67	0.53	0.50
0.67	0.77	0.90	0.78	0.81	0.62	0.82	0.76	0.87
0.65	0.49	0.50	0.73	0.58	0.62	0.96	0.39	0.72
8.49	8.18	8.61	8.63	8.12	8.25	9.17	8.66	8.64

ALL PRINTERS BY GEOGRAPHIC REGION

BALANCE SHEET

	NEW ENGLAND AND UP-STATE NEW YORK	METROPOLITAN NEW YORK AND NEW JERSEY	EASTERN PENNA., MARYLAND AND D.C.
ASSETS			
CURRENT ASSETS			
Cash	6.45%	9.42%	8.09%
Receivables	31.18	29.42	31.45
Inventories	11.27	14.53	12.16
Other current assets	4.36	5.51	4.11
TOTAL CURRENT ASSETS	53.26	58.88	55.81
FIXED ASSETS			
Real estate	11.59	4.92	9.85
Less: Accumulated depreciation	3.50	1.12	3.29
	8.09	3.80	6.56
Machinery and equipment	64.97	62.29	64.74
Less: Accumulated depreciation	34.76	36.39	35.00
	30.21	25.90	29.74
Other fixed assets	7.95	8.96	8.26
Less: Accumulated depreciation	4.19	4.69	4.36
	3.76	4.27	3.90
NET FIXED ASSETS	42.06	33.97	40.20
OTHER ASSETS	4.68	7.15	3.99
TOTAL ASSETS	100.00	100.00	100.00
LIABILITIES AND EQUITY			
CURRENT LIABILITIES			
Notes payable	9.12	9.44	10.36
Accounts payable	14.49	16.76	13.13
Other current liabilities	7.22	11.28	8.48
TOTAL CURRENT LIABILITIES	30.83	37.48	31.97
LONG-TERM LIABILITIES	31.43	25.51	28.95
TOTAL LIABILITIES	62.26	62.99	60.92
SHAREHOLDERS' AND PROPRIETORS' EQUITY	37.74	37.01	39.08
TOTAL LIABILITIES AND EQUITY	100.00	100.00	100.00

BALANCE SHEET RATIOS

CURRENT RATIO	1.73	1.57	1.75
QUICK RATIO	1.36	1.18	1.37
TOTAL LIABILITIES TO EQUITY	1.65	1.70	1.56
LONG-TERM LIABILITIES TO EQUITY	0.83	0.69	0.74
ACCUMULATED DEPRECIATION - MACHINERY AND EQUIPMENT TO TOTAL MACHINERY AND EQUIPMENT	0.54	0.58	0.54

SOUTHEAST ATLANTIC	EAST NORTH CENTRAL	SOUTH CENTRAL	CHICAGO AREA	WEST NORTH CENTRAL	PLAINS AND MOUNTAIN STATES	PACIFIC SOUTHWEST	PACIFIC NORTHWEST	CANADA
7.13%	7.93%	5.89%	5.74%	6.33%	8.90%	8.00%	7.05%	1.16%
32.25	32.77	32.04	31.14	31.96	32.29	37.89	35.30	37.34
10.84	12.67	13.40	13.88	14.26	10.63	9.17	10.99	13.09
2.79	2.38	4.75	3.30	2.52	4.93	6.28	3.69	3.40
53.01	55.75	56.08	54.06	55.07	56.75	61.34	57.03	54.99
10.50	12.08	12.24	10.07	11.15	9.57	4.56	7.62	10.60
3.08	4.26	4.04	3.63	4.21	2.80	1.12	2.51	2.78
7.42	7.82	8.20	6.44	6.94	6.77	3.44	5.11	7.82
71.69	67.52	66.55	69.72	66.52	73.12	65.93	72.12	66.40
39.09	39.38	38.12	37.90	36.19	43.95	38.37	43.24	34.78
32.60	28.14	28.43	31.82	30.33	29.17	27.56	28.88	31.62
9.00	8.43	7.07	6.67	7.35	7.39	9.60	8.65	6.28
4.87	4.51	3.95	3.85	4.05	4.20	5.07	4.59	3.54
4.13	3.92	3.12	2.82	3.30	3.19	4.53	4.06	2.74
44.15	39.88	39.75	41.08	40.57	39.13	35.53	38.05	42.18
2.84	4.37	4.17	4.86	4.36	4.12	3.13	4.92	2.83
100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
9.01	8.81	8.67	8.37	6.62	11.34	11.90	10.03	10.08
12.47	13.58	13.45	13.43	13.30	13.52	14.64	13.09	17.50
6.71	10.48	7.86	9.09	10.58	6.74	8.25	9.70	9.75
28.19	32.87	29.98	30.89	30.50	31.60	34.79	32.82	37.33
34.31	26.55	28.25	30.29	33.11	30.01	26.34	33.08	27.55
62.50	59.42	58.23	61.18	63.61	61.61	61.13	65.90	64.88
37.50	40.58	41.77	38.82	36.39	38.39	38.87	34.10	35.12
100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00	100.00
1.88	1.70	1.87	1.75	1.81	1.80	1.76	1.74	1.47
1.50	1.31	1.42	1.30	1.34	1.46	1.50	1.40	1.12
1.67	1.46	1.39	1.58	1.75	1.60	1.57	1.93	1.85
0.91	0.65	0.68	0.78	0.91	0.78	0.68	0.97	0.78
0.55	0.58	0.57	0.54	0.54	0.60	0.58	0.60	0.52

ALL PRINTERS BY GEOGRAPHIC REGION

SIGNIFICANT FACTS

	NEW ENGLAND AND UP-STATE NEW YORK	METROPOLITAN NEW YORK AND NEW JERSEY	EASTERN PENNA., MARYLAND AND D.C.
INVESTMENT			
Average assets per employee - All employees	$ 40,686	$ 48,952	$ 37,657
Average assets per factory employee (Excluding Executives)	56,446	69,821	52,306
Average net worth per employee - All employees	16,358	19,481	14,398
Average gross plant investment per factory employee (Excluding Executives)	46,481	54,487	43,112
Net worth percentage of fixed assets	106.08%	120.05%	119.79%
EMPLOYEES			
Percent factory - All employees	75.38%	72.92%	76.87%
Percent administrative - All employees	13.64	19.22	13.03
Percent sales - All employees	10.98	7.86	10.10
SALES - VALUE OF PRODUCT PRODUCED INCLUDING EXECUTIVES			
Sales per employee - All employees	$ 74,742	$ 94,879	$ 73,862
Sales per factory employee	98,833	132,024	98,531
Sales less material per factory employee	61,773	78,961	60,281
Sales per administrative employee	757,641	652,931	712,083
EXCLUDING EXECUTIVES			
Sales per employee - All employees	81,605	103,199	83,132
Sales per factory employee	104,065	137,400	104,020
Sales less material per factory employee	65,061	82,421	63,699
SALES PER SALESMAN	1,013,474	959,433	1,002,908
SALES TO CURRENT ASSETS	400%	379%	415%
PAYROLL - INCLUDING TAXES AND BENEFITS INCLUDING EXECUTIVES			
Total payroll percentage of sales	39.83%	38.58%	39.61%
Factory payroll percentage of gross plant investment	90.44	80.24	74.01
Payroll per employee - All employees	$ 28,809	$ 34,890	$ 28,353
Payroll per factory employee	25,502	30,543	25,705
Payroll per administrative employee	37,186	39,568	34,750
Payroll per sales employee	45,839	66,152	41,217
PAYROLL - EXCLUDING TAXES AND BENEFITS EXCLUDING EXECUTIVES			
Payroll per employee - All employees	$ 21,999	$ 26,363	$ 21,594
Payroll per factory employee	20,478	24,762	20,712
Payroll per administrative employee	17,635	19,879	17,309
Payroll per sales employee	36,655	53,140	29,876
EXECUTIVE PAYROLL			
Payroll per executive - All executives	59,337	82,869	55,891
Payroll per factory executive	38,539	24,410	33,566
Payroll per administrative executive	76,827	103,341	66,915
Payroll per sales executive	54,915	75,826	48,938
RECEIVABLES			
Collection period	59.5	50.8	56.5
PROFIT			
Gross profit percentage of sales	23.48%	23.66%	21.85%
Average gross profit per factory employee	$ 24,472	$ 33,197	$ 23,105
Income before taxes percentage of sales	3.37%	2.01%	2.83%
Average income before taxes per employee	$ 2,946	$ 2,264	$ 2,461

SOUTHEAST ATLANTIC	EAST NORTH CENTRAL	SOUTH CENTRAL	CHICAGO AREA	WEST NORTH CENTRAL	PLAINS AND MOUNTAIN STATES	PACIFIC SOUTHWEST	PACIFIC NORTHWEST	CANADA
$ 34,095	$ 42,867	$ 41,478	$ 48,610	$ 40,217	$ 38,596	$ 33,689	$ 39,916	$ 35,060
48,412	61,232	58,281	74,842	55,686	55,599	53,824	60,871	50,420
13,097	17,583	17,184	19,006	14,972	15,430	13,125	15,037	12,679
41,356	49,749	49,193	56,675	46,401	46,558	42,455	50,511	40,293
111.68%	100.84%	141.29%	114.03%	86.20%	155.77%	173.99%	345.45%	102.89%
74.72%	76.16%	76.07%	74.47%	74.53%	72.66%	71.06%	68.96%	73.53%
13.45	12.78	12.38	13.23	13.95	16.43	16.19	16.92	13.40
11.83	11.06	11.55	12.30	11.52	10.91	12.75	14.12	13.07
$ 64,171	$ 79,305	$ 79,253	$ 93,160	$ 77,052	$ 73,780	$ 79,291	$ 81,056	$ 63,775
86,969	105,619	105,798	143,868	103,380	102,096	113,453	120,142	86,943
53,884	66,403	62,261	82,240	61,264	62,625	71,237	75,626	50,502
722,939	832,574	786,770	1,045,271	801,889	644,282	667,019	663,051	622,136
71,221	88,505	87,037	102,477	85,041	82,919	99,332	91,690	71,276
92,044	112,824	111,860	150,398	108,330	108,970	130,753	126,937	92,774
57,045	70,913	65,820	86,222	64,190	67,004	80,398	79,926	53,831
671,784	841,892	817,368	952,181	1,054,293	604,086	623,711	521,373	602,001
423%	390%	394%	515%	399%	432%	456%	445%	379%
38.77%	40.51%	38.92%	38.73%	38.30%	39.91%	39.11%	40.00%	37.29%
66.16	78.26	68.48	70.30	99.70	81.52	100.21	84.92	78.03
$ 23,875	$ 31,738	$ 29,570	$ 33,586	$ 28,350	$ 28,307	$ 30,442	$ 31,670	$ 22,282
21,322	28,675	26,002	30,048	25,457	25,245	27,223	28,873	21,206
30,722	39,426	36,997	40,194	35,030	33,010	36,196	38,150	21,503
38,912	46,926	49,692	54,558	40,067	43,146	40,096	41,173	30,476
$ 18,897	$ 23,829	$ 22,403	$ 25,408	$ 21,556	$ 22,485	$ 23,430	$ 23,816	$ 18,945
17,784	22,657	20,882	24,049	20,497	21,123	22,294	23,370	18,460
15,317	19,134	17,942	20,127	17,669	18,231	18,938	18,619	13,706
30,395	37,812	38,668	41,244	32,595	36,799	31,222	28,145	26,443
48,262	52,988	58,989	65,062	50,368	47,830	58,468	54,309	32,427
37,510	32,008	36,109	35,852	28,300	33,000	32,368	27,679	27,230
57,279	62,595	71,735	80,201	59,080	56,404	63,752	63,164	35,990
44,500	48,705	54,071	58,377	39,925	42,857	43,064	40,675	32,784
57.8	62.3	57.6	57.8	57.9	55.4	56.5	56.9	71.7
23.48%	22.64%	21.61%	23.05%	22.54%	22.82%	25.89%	25.10%	23.42%
$ 22,358	$ 26,455	$ 24,013	$ 38,664	$ 24,197	$ 24,762	$ 32,761	$ 32,483	$ 21,434
3.51%	3.85%	2.66%	4.13%	2.74%	2.45%	3.37%	2.72%	5.10%
$ 2,873	$ 3,286	$ 2,310	$ 4,797	$ 2,389	$ 1,894	$ 2,448	$ 2,604	$ 3,579

ALL PRINTERS BY GEOGRAPHIC REGION

RETURN ON INVESTMENT - PER $100 OF SALES

	NEW ENGLAND AND UP-STATE NEW YORK	METROPOLITAN NEW YORK AND NEW JERSEY	EASTERN PENNA., MARYLAND AND D.C.
INVESTMENT			
Current Assets:			
Cash	$ 3.64	$ 4.98	$ 4.15
Receivables	15.88	13.65	15.22
Inventories	5.71	6.28	5.41
Marketable securities	1.33	0.97	0.71
Other current assets	1.13	1.89	1.56
	27.69	27.77	27.05
Plant Investment:			
Land and building	7.01	4.34	5.35
Machinery and equipment	34.25	31.96	32.66
Other fixed assets	3.96	3.97	3.74
	45.22	40.27	41.75
Non-Current Assets	2.52	3.04	2.22
TOTAL INVESTMENT	75.43	71.08	71.02
INVESTMENT TURNOVER PER $100 OF SALES	132.57%	140.69%	140.81%
EARNINGS			
Cost of Product	$76.52	$76.34	$78.15
Selling Expenses	8.56	7.63	7.66
Administrative Expenses	9.89	12.35	9.61
	94.97	96.32	95.42
Income Before Interest, Other Income, and Taxes	5.03	3.68	4.58
RETURN ON INVESTMENT - INVESTMENT TURNOVER X INCOME	6.67%	5.18%	6.45%

SOUTHEAST ATLANTIC	EAST NORTH CENTRAL	SOUTH CENTRAL	CHICAGO AREA	WEST NORTH CENTRAL	PLAINS AND MOUNTAIN STATES	PACIFIC SOUTHWEST	PACIFIC NORTHWEST	CANADA
$ 4.28	$ 4.09	$ 2.97	$ 2.74	$ 3.05	$ 4.85	$ 3.50	$ 3.58	$ 0.67
15.61	16.75	15.29	15.40	15.50	14.72	14.94	15.15	18.90
5.49	6.27	6.83	8.41	6.92	5.47	3.82	5.14	7.19
0.54	0.41	0.72	0.86	0.25	0.64	0.34	0.31	0.68
0.82	0.87	1.97	0.90	1.05	2.57	3.02	1.42	1.16
26.74	28.39	27.78	28.31	26.77	28.25	25.62	25.60	28.60
6.30	6.64	7.17	6.77	6.46	5.89	2.43	4.77	6.35
36.44	32.96	33.51	33.33	33.45	35.11	27.76	31.63	35.15
4.03	4.03	3.68	3.47	3.43	3.38	3.79	3.60	2.99
46.77	43.63	44.36	43.57	43.34	44.38	33.98	40.00	44.49
1.66	2.47	2.45	3.07	2.71	2.36	1.57	2.34	1.67
75.17	74.49	74.59	74.95	72.82	74.99	61.17	67.94	74.76
133.03%	134.25%	134.07%	133.42%	137.32%	133.35%	163.48%	147.19%	133.76%
$76.52	$77.36	$78.39	$76.95	$77.46	$77.18	$74.11	$74.90	$76.58
8.49	8.18	8.61	8.63	8.12	8.25	9.17	8.66	8.64
9.86	9.35	9.42	9.26	10.29	11.10	11.76	12.01	8.47
94.87	94.89	96.42	94.84	95.87	96.53	95.04	95.57	93.69
5.13	5.11	3.58	5.16	4.13	3.47	4.96	4.43	6.31
6.82%	6.86%	4.80%	6.88%	5.67%	4.63%	8.11%	6.52%	8.44%

ABSOLUTE DATA

	NUMBER OF PARTICIPATING FIRMS	AVERAGE FIRM REPORTING** TOTAL ASSETS	SALES OR VALUE OF PRODUCTION	TOTAL INCOME
TOTAL - ALL PRINTING FIRMS	867	$4,218,000	$ 7,383,000	$372,000
ALL PRINTERS BY GEOGRAPHIC REGION				
New England and Up-State New York	80	4,513,000	7,560,000	259,000
Metropolitan New York and New Jersey	17	5,002,000	10,026,000	155,000
Eastern Penna., Maryland and D.C.	61	4,251,000	7,543,000	461,000
Southeast Atlantic	92	3,872,000	6,859,000	374,000
East North Central	39	4,269,000	7,616,000	405,000
South Central	86	3,995,000	7,042,000	256,000
Chicago Area	66	7,203,000	12,298,000	873,000
West North Central	72	5,542,000	9,363,000	475,000
Plains and Mountain States	101	3,078,000	5,377,000	163,000
Pacific Southwest	74	4,119,000	8,029,000	515,000
Pacific Northwest	72	2,473,000	4,244,000	149,000
Canada	107	3,903,000	6,573,000	389,000

HOW THE NUMBERS ARE COMPUTED

The PIA Ratios are computed by the method of relative or common size. With this method each company's dollars are converted into a percentage to the total. Then these percentages are added in total and within a given sales class. This is a very simple way of avoiding what is known as self-weighting when various magnitudes are involved. With this method each company is given equal weight regardless of their size.

The following example illustrates how this calculation process eliminates the problem of the ratios' giving inordinate weight to the results of very large firms.

Firm	Sales	Factory Payroll	% of Sales: Firm's Ratio Factory Payroll	% of Sales: PIA Ratios Factory Payroll
A	$ 200,000	$ 60,000	30.0%	
B	500,000	100,000	20.0	
C	8,000,000	975,000	12.2	
			62.2% divided by 3 = 20.7%	

** Unlike the ratios shown in this book, these figures are arithmetic averages.